COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
5636 Southern Boulevard, Virginia Beach, Virginia 23462
(757) 518-2000 Fax (757) 518-2009
www.deq.virginia.gov

Doug Domenech
Secretary of Natural Resources

David K. Paylor
Director

Maria R. Nold
Regional Director

May 23, 2012

Mr. Robert McKinley
VP Generation Construction
Virginia Electric and Power Company
Dominion - Southampton Power Station
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Location: Southampton County
Registration No.: 61093
AFS Id. No.: 51-175-00051

Dear Mr. McKinley:

This letter is in regard to the new source review permit to construct and operate a steam electricity cogeneration facility in accordance with the provisions of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit shall supersede your permit dated February 3, 2011, in accordance with Condition #3 contained herein.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

In the course of evaluating the application and arriving at a final decision to approve the project, the Department of Environmental Quality (DEQ) deemed the application complete on March 12, 2012, and solicited written public comments by placing a newspaper advertisement in the *Tidewater News* on March 16, 2012. A public hearing was held on April 16, 2012. The required comment period, provided by 9 VAC 5-80-1775 expired on April 30, 2012.

This permit approval to construct and operate shall not relieve Virginia Electric and Power Company – Dominion - Southampton Power Station of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. 9 VAC 5-170-200 provides that you may request direct consideration of the decision by the Board if the Director of the DEQ made the decision. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
PO Box 1105
Richmond, VA 23218-1105

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact Kelly R. Giles at 757-518-2155 or by email at Kelly.giles@deq.virginia.gov .

Sincerely,

Troy D. Breathwaite
Regional Air Permits Manager

TDB/KRG/61093_014_12_PSD_majormod_DominionSouthampton.doc

Attachments: Permit
Appendix A - Document List

Link for NSPS Regulations: NSPS, Subpart Db
NSPS, Subpart Dc

http://ecfr.gpoaccess.gov/cgi/t/text/textidx?sid=27d0dad4dd3d4c1969aad205b798e315&c=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl

cc: Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)
Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic file submission)
Manager/Inspector, Air Compliance

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PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE
This permit includes designated equipment subject to
New Source Performance Standards (NSPS).
This permit supersedes your permit dated February 3, 2011, in accordance with Condition #3 of this permit.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Virginia Electric and Power Company
Dominion - Southampton Power Station
30134 General Thomas Highway
Franklin, Virginia 23851
Registration No.: 61093
AFS Id. No.: 51-175-00051

is authorized to modify and operate

a cogeneration facility

located

off of Route 671 near the Ashland Chemical Plant in Southampton County, Virginia

in accordance with the Conditions of this permit.

Approved on: May 23, 2012

Maria R. Nold

Maria R. Nold

May 23, 2012
Signature Date

Permit consists of 20 pages.
Permit Conditions 1 to 59.
Appendix A - 6 pages.

INTRODUCTION

1. This permit approval is based on the permit application dated May 4, 1988 and May 25, 2011, including amendment information dated June 15, 2010, August 24, 2010, August 30, 2010, September 2, 2010, December 8, 2010, January 25, 2011 and referenced in Appendix A and supplemental information dated April 4, 2011, May 10, 2011, May 25, 2011, September 29, 2011, November 18, 2011, December 5, 2011, January 17, 2012, January 24, 2012, January 31, 2012, February 9, 2012, February 10, 2012, February 15, 2012, February 16, 2012, February 22, 2012, February 23, 2012, March 5, 2012, March 9, 2012, March 11, 2012, and March 12, 2012. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action. In addition, this facility may be subject to additional applicable requirements not listed in this permit.

   Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-10 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

   Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

   The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, § 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

2. **Equipment List** - Equipment at this facility consists of the following:

Equipment modified by this permit			
Reference No.	**Equipment Description**	**Rated Capacity**	**Federal Requirements**
001 002	Two (2) Primary Biomass Boilers to generate steam for process use and electricity generation. (No. 2 fuel oil for start-up only) (B&W, single drum, single pass stokers, 1990)	394 MMBTU/hr (maximum) 379 MMBTU/hr (nominal)	NSPS Subpart Db MACT Subpart DDDDD
016	Ash Unloading Feeder (with water spray)	80 tons/hr	N/A

Equipment constructed by this permit			
Reference No.	**Equipment Description**	**Rated Capacity**	**Federal Requirements**
101A 101B	Two (2) biomass truck tippers to two (2) receiving hoppers	269 tons/hr	N/A
101C	Emergency Reclaimer	90 tons/hr	N/A
102	Biomass Storage Pile	3 MMCF	N/A
103	Biomass Stacker	269 tons/hr	N/A
104-1	Truck Tipper Reclaimer #1 to Conveyor A Transfer Point	269 tons/hr	N/A
104-2	Truck Tipper Reclaimer #2 to Conveyor A Transfer Point	269 tons/hr	N/A
104-3	Conveyor B to Diverter Gate #2 Transfer Point	269 tons/hr	N/A
104-4	Conveyor C to Stacker Transfer Point	269 tons/hr	N/A
104-5	Reclaimer to Conveyor D Transfer Point	90 tons/hr	N/A
104-6	Emergency Reclaimer to Conveyor D Transfer Point	90 tons/hr	N/A
104-7	Diverter gate #2 to Conveyor D Transfer Point	90 tons/hr	N/A
104-8	Conveyor D to Conveyor E Transfer Point	90 tons/hr	N/A
104-9	Conveyor E to Fuel Bunker Drag Chain Transfer Point	90 tons/hr	N/A

Equipment permitted prior to the date of this permit			
Reference No.	**Equipment Description**	**Rated Capacity**	**Federal Requirements**
004	One (1) auxiliary boiler to generate steam for process use (combusts No. 2 fuel oil)	81.58 MMBTU/hr (nominal)	NSPS Subpart Dc
006	One (1) emergency auxiliary diesel generator	1.4 MMBTU/hr 410 kW (nominal)	N/A
007	One (1) emergency diesel feedwater pump	1.23 MMBTU/hr 126 bhp (nominal)	N/A
008	One (1) emergency diesel firewater pump engine	0.68 MMBTU/hr 208 bhp (nominal)	N/A
009	One (1) portable diesel air compressor engine	0.49 MMBTU/hr 80 bhp (nominal)	N/A
010	One (1) Biomass storage silo (former coal silo)	180 tons	N/A
011 012 013	Three (3) Ash Conveying Blowers (A, B and C)	28 tons/hr	N/A
015	Ash Storage Silo	530 tons	N/A
017	Lime Storage Silo	135 tons	N/A

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.
(9 VAC 5-80-1180 D 3)

3. **Permit** – Upon start-up of the biomass handling system as described in the permit application, including amendment information as referenced in Condition 1 of this permit, this permit shall supersede your permit dated February 3, 2011. Upon start-up of the biomass handling system as described in the permit application, the permittee shall deactivate all coal handling equipment.
(9 VAC 5-80-1985 D and 9 VAC 5-80-1180)

4. **Emission Controls** - Particulate matter emissions from the primary biomass boilers (001 and 002) shall be controlled by an in-line multiple cyclone, a lime water injection spray dryer and a fabric filter rated at 99.9 percent control efficiency. The control systems shall be provided with adequate access for inspection and shall be in operation when the primary biomass boilers are operating. The fabric filter may be bypassed during non-biomass fuel boiler start-ups to alleviate potential moisture damage to the baghouse at low start-up temperatures. Bypass of the fabric filter shall not exceed 12 hours per start-up.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

5. **Emission Controls** - Particulate matter emissions from the auxiliary boiler (004) shall be controlled by combustion efficiency.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

6. **Emission Controls** - Particulate matter emissions from the biomass storage silo, lime storage silo and ash silo (010, 017 and 015) shall be controlled by bag filters. The bag filters shall be provided with adequate access for inspection and shall be in operation when the biomass storage silo, lime storage silo, recycle flyash bin, and ash silo are operating.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

7. **Emission Controls** - Sulfur dioxide (SO_2) emissions from the primary biomass boilers (001 and 002) shall be controlled by a lime-water injection spray dryer (a dry FGD system). The lime-water spray dryer shall be provided with adequate access for inspection and shall be in operation when the primary biomass boilers are operating.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

8. **Emission Controls** - Nitrogen oxide (as NO_2) emissions from the primary biomass boilers (001 and 002) shall be controlled by a selective non-catalytic reduction (SNCR) system, a continuous biomass feed system, staged combustion and low excess air.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

9. **Emission Controls** – Lime slaker emissions shall be controlled by a dust suppression aspirator and water jet spray system (venturi scrubber). The aspirator vapor discharge shall be piped to the slurry tank for complete enclosure of all dust particles produced during the slaking process.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

10. **Fugitive Emission Controls** – Fugitive dust emissions from the truck tippers (101A and 101B) shall be controlled by enclosures and covers.
(9 VAC 5-80-1985 E, 9 VAC 5-50-90 and 9 VAC 5-80-1180)

11. **Fugitive Emission Controls** – Fugitive dust emissions from the biomass screening and hogging operations shall be controlled by total enclosures.
(9 VAC 5-80-1985 E, 9 VAC 5-50-90 and 9 VAC 5-80-1180)

12. **Fugitive Emission Controls** – Fugitive dust emissions from the biomass conveyors and transfer points shall be controlled by enclosed conveyors and chutes.
(9 VAC 5-80-1985 E, 9 VAC 5-50-90 and 9 VAC 5-80-1180)

13. **Fugitive Emission Controls** – Discharge from the ash and flue gas desulfurization product storage silo shall be mixed with water to minimize fugitive dust emissions as necessary.
(9 VAC 5-80-1985 E, 9 VAC 5-50-90 and 9 VAC 5-80-1180)

14. **Fugitive Emission Controls** – Fugitive dust emissions from the furnace bottom ash drag shall be controlled by quenching ash with water. Fugitive dust emissions from the boiler ash collection drag and mechanical collector ash collection drag shall be saturated by water spray nozzles.
(9 VAC 5-80-1985 E, 9 VAC 5-50-90 and 9 VAC 5-80-1180)

15. **Fugitive Dust and Fugitive Emission Controls** – Fugitive dust and fugitive emission controls shall include the following, or equivalent, as approved by DEQ:

    a. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; paving of roadways, and maintenance of roadways in a clean condition;

    b. Open equipment for conveying or transporting materials likely to create objectionable air pollution when airborne shall be covered, or treated in an equally effective manner at all times when in motion;

    c. Prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion;

    d. Dust from material handling, and load-outs, shall be controlled by wet suppression or equivalent. The wet suppression spray systems shall be operated at optimum design; and

    e. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. These measures shall include paving the entrance/access road to the facility. Dirt, product, or raw material spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.

    (9 VAC 5-80-1985 E, 9 VAC 5-50-90 and 9 VAC 5-80-1180)

16. **Continuous Emission Monitors (CEMs)** – Continuous emission monitors shall be installed to measure and record the concentration of opacity, SO_2, NO_x (at each boiler outlet) and CO_2 or O_2 emitted from the primary biomass boilers (001 and 002). The CEMs shall be maintained and calibrated in accordance with approved procedures (reference to 40 CFR 60.13). A 30 day notification prior to the demonstration of continuous monitoring system performance and subsequent notifications are to be submitted to the Director, Tidewater Regional Office.
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

17. **Continuous Emission Monitors (CEMs)** – A continuous emission monitor shall be installed to measure and record the opacity emitted from the auxiliary boiler (004). The CEM shall be maintained and calibrated in accordance with approved procedures (reference to 40 CFR 60.13). A 30 day notification prior to the demonstration of continuous monitoring system performance and subsequent notifications are to be submitted to the Director, Tidewater Regional Office.
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

18. **Continuous Emission Monitors (CEMs)** – The continuous monitoring data generated by the SO_2 and NO_x monitors on the primary biomass boilers (001 and 002) shall be used to determine compliance with the emission standards on a 30-day rolling average basis. All of the data capture, quality assurance provisions and reporting requirements of NSPS Subpart Db shall apply.
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

19. **Continuous Emission Monitors (CEMs)** – The continuous emission monitors for opacity on the primary biomass boilers (001 and 002) and the auxiliary boiler (004), all other continuous emission monitors required by this permit, and the continuous monitoring and quality assurance data may, at the discretion of the Board, be used as evidence of violation of the emission standards. These monitors are subject to such data capture requirements and/or quality assurance requirements as may be deemed appropriate by the Board (refer to 40 CFR 60.13 and Appendix B).
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

20. **Continuous Emission Monitors (CEMs)** – A continuous emission monitor meeting the design specifications of 40 CFR Part 60, Appendix B Performance Specification 4A, shall be installed to measure and record the emissions of CO from each primary biomass boiler (001 and 002) as lbs/MMBtu and lbs/hr. The CEMs shall be installed, calibrated, maintained, audited and operated in accordance with DEQ approved procedures which are equivalent to the requirements of 40 CFR 60.13 and Appendices B and F. Data shall be reduced to 30-day rolling averages per the procedures for NOx contained in 40 CFR 60 Subpart Db. The monitor shall be used to demonstrate compliance with the 30-day rolling average CO emission standard (lb/MMBtu basis) as noted in Condition 35.
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

21. **Stack Flowmeter** – A flowmeter shall be used to measure the stack gas airflow from the common stack with the flow apportioned by steam flow rate for each primary biomass boiler (001 and 002) utilizing the procedures for Part 75 apportionment. The stack gas flowmeter shall be installed, operated, and maintained in accordance with the provisions of 40 CFR 75 Appendices A and B, with the exception that the relative accuracy test audit (RATA) be performed at least once every four (4) consecutive calendar quarters. The permittee shall submit stack gas flowmeter reports as required by 40 CFR 75 Appendices A and B. The CO emissions (lb/hr basis) shall be calculated from data obtained from the CO continuous emissions monitoring system and stack gas flowmeter in accordance with the provisions of 40 CFR 75 Appendix F. These data shall be used to demonstrate compliance with the CO emission standard (lb/hr basis) as noted in Condition 35.
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

22. **Performance Evaluation** – Performance evaluations of the CO continuous monitoring systems shall be conducted in accordance with 40 CFR Part 60, Appendix B, and shall take place within 180 days after the initial effective date of the CO 30-day rolling average limit. Two copies of the performance evaluation report shall be submitted to the Director, Tidewater Regional Office within 45 days of the evaluation. The continuous monitoring systems shall be installed and operational prior to conduction initial performance evaluations. Verification of operational status shall, at a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30 day notification, prior to the demonstration of continuous monitoring system performance, and subsequent notifications shall be submitted to the Director, Tidewater Regional Office.
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

23. **Steam Agreement** – Any host steam agreement, excluding financial terms, shall be made available on site for review by DEQ upon request.
(9 VAC 5-80-1985 E)

24. **Boiler Stack Height** – The auxiliary boiler (004) stack height shall be 200 feet or greater.
(9 VAC 5-80-1985 E)

OPERATING LIMITATIONS

25. **Fuel** - The approved fuels are listed in the table below. A change in the fuel may require a permit to modify and operate.

Reference No.	Equipment Description	Fuel Type(s)
001	Primary Boiler #1	Biomass Distillate Oil
002	Primary Boiler #2	Biomass Distillate Oil
004	Auxiliary Boiler	Distillate Oil
006	Auxiliary Generator	Distillate Oil
007	Emergency Feedwater Pump	Distillate Oil
008	Firewater Pump Engine	Distillate Oil
009	Portable Air Compressor Engine	Distillate Oil

(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

26. **Fuel** – The biomass shall meet the specifications below:

Biomass means those residuals that are akin to traditional cellulosic biomass including forest-derived biomass (e.g., green wood, forest thinning, clean and unadulterated bark, sawdust, trim, and tree harvesting residuals from logging and sawmill materials), wood collected from forest fire clearance activities, trees and clean wood found in disaster debris, and clean biomass from land clearing operations, each as specified in the definition of Clean Cellulosic Biomass in 40 CFR 241.2, excluding any wood which contains chemical treatments or has affixed thereto paint and/or finishing materials or paper or plastic laminates. Approved biomass is biomass that does not contain contaminants at concentrations not normally associated with virgin biomass materials.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

27. **Fuel Quality Data** -The permittee shall obtain the following fuel quality data on the biomass for the primary boilers (001 and 002):

a. An analysis of the biomass heat content as-fired at least once per calendar week;

b. An ultimate analysis of the biomass as-fired at least once per calendar quarter;

c. An analysis of the biomass fluoride content as-fired at least once per calendar quarter; and

d. The permittee shall submit a fuel shipment certification plan at least 60 days prior to facility startup for approval by the Tidewater Regional Office. Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in this permit.

Details of the sampling procedures shall be arranged with the Tidewater Regional Office. These records shall be available on site for inspection by the Department personnel and shall be kept current for the most recent five year period.
(9 VAC 5-80-1985E)

28. **Fuel Throughput** - The facility-wide throughput limit of distillate oil is as listed in the table below.

Fuel Type	Limit
Distillate Oil	5,879,518 gallons/yr

The annual limits are calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1985 E)

29. **Firing Rate** – The firing rates for the primary biomass boilers (001 and 002) are as listed in the table below.

Firing Rate	Limit
Each Primary Boiler Maximum	394 MMbtu/hr
Primary Boilers, Combined Total	6,109,480 MMBtu/yr

The annual limit is calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1985 E)

30. **Operating Hours** - Hourly operating limits for fuel burning equipment are listed in the table below.

Reference No.	Equipment Description	Limit (hr/yr)
001	Primary Boiler #1	8,400
002	Primary Boiler #2	8,400
006	Auxiliary Generator	336
007	Emergency Feedwater Pump	116
008	Firewater Pump Engine	116
009	Portable Air Compressor Engine	220

These annual limits are calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

31. **Boiler Operation** - The auxiliary boiler (004) and the primary biomass boilers (001 and 002) shall not operate concurrently, except during start-up and shutdown, and for no more than 12 hours over any consecutive 24-hour period and unless both primary biomass boilers (001 and 002) are operating at fifty (50) percent capacity or less.
(9 VAC 5-80-1985 E and 9 VAC 5-80-1715)

32. **Fuel** - The distillate oil shall meet the specifications below:

Reference No.	Equipment Description	Fuel	Maximum % Sulfur (by weight, per shipment)	Average % Sulfur	ASTM Method
001 002	Primary Boiler #1 Primary Boiler #2	Distillate Oil	0.3	0.2	D396 (for numbers 1 or 2 fuel oil)
004	Auxiliary Boiler	Distillate Oil	0.3	0.2	D396 (for numbers 1 or 2 fuel oil)
006	Auxiliary Generator	Distillate Oil	0.3		D396 (for numbers 1 or 2 fuel oil)
007	Emergency Feedwater Pump	Distillate Oil	0.3		D396 (for numbers 1 or 2 fuel oil)
008	Firewater Pump Engine	Distillate Oil	0.3		D396 (for numbers 1 or 2 fuel oil)
009	Air Compressor Engine	Distillate Oil	0.3		D396 (for numbers 1 or 2 fuel oil)

(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

33. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
    a. The name of the fuel supplier;
    b. The date on which the distillate oil was received;
    c. The quantity of distillate oil delivered in the shipment;
    d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for numbers 1 or 2 fuel oil; and
    e. A statement that the sulfur content of the distillate oil is less than or equal to 0.3 percent by weight per shipment.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 32. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

34. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the NSPS equipment as described in Condition 2 shall be operated in compliance with the requirements of 40 CFR 60, Subpart Db and 40 CFR 60, Subpart Dc. Note: All applicable requirements of 40 CFR 60, Subpart Db and 40 CFR 60, Subpart Dc **are not** specifically listed in this permit. The permittee should refer to the applicable regulation for additional requirements not included in this permit.
(9 VAC 5-80-1180, 9 VAC 5-50-400, and 9 VAC 5-50-410)

EMISSION LIMITS

35. **Process Emission Limits** - Emissions from the operation of each of the primary biomass boilers (001 and 002) shall not exceed the limitations specified below:

Pollutant	Lbs/MMBTU	Lbs/hr	Tons/yr
$PM_{2.5}$ – total	----------	11.67	49.01
PM_{10} – filterable	0.017	6.7	----------
PM_{10} – total	----------	12.20	51.25
PM – filterable	0.019	7.5	----------
PM – total	----------	13.65	57.33
Sulfur Dioxide	0.0125 *	4.9	19.1
Nitrogen Oxide (as NO_2) **	0.135 *	53.2	206.2
Carbon Monoxide ***	0.30 *	118.2	458.2
Volatile Organic Compounds ***	----------	5.05	21.21
Fluorides (as HF)	----------	0.4	1.70
Sulfuric Acid Mist	----------	0.96	4.05

* – Compliance determined on a 30-day rolling average.
** – Lower Limits may be imposed by the DEQ after review of in-stack testing and optimizing the SNCR.
*** – Lower limits may be imposed by the DEQ after review of in-stack testing.

These emissions are derived from the estimated overall emission contribution from operating limits, process requirements and/or calculations. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 3, 4, 7, 8, 14, 16, 18 - 22, 25 - 34, 41, and 45 - 49.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705, 9 VAC 5-50-260 and 9 VAC 5-80-1180)

36. **Process Emission Limits** - Emissions from the operation of the auxiliary boiler (004) shall not exceed the limits specified below:

Pollutant	Lbs/MMBTU	Lbs/hr
PM – 10	0.03	2.4
PM – total	0.04	3.3
Sulfur Dioxide	0.31	25.3
Nitrogen Oxide (as NO_2)	0.1	8.2
Carbon Monoxide	0.082	6.7
Volatile Organic Compounds	0.041	3.3

These emissions are derived from the estimated overall emission contribution from operating limits, process requirements and/or calculations. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 3, 5, 17, 19, 24, 25, 28, 31 - 34, 41 and 45. Annual emissions are included in Condition 37.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

37. **Process Emission Limits** - Combined emissions from the operation of the primary biomass (001 and 002) and auxiliary boiler (004) shall not exceed the limits specified below:

Pollutant	Tons/yr
$PM_{2.5}$ – total	98.0
PM_{10} – total	102.9
PM – total	115.3
Sulfur Dioxide	42.7
Nitrogen Oxide (as NO_2) **	413.9
Carbon Monoxide ***	917.7
Volatile Organic Compounds ***	43.0

** – Lower Limits may be imposed by the DEQ after review of in-stack testing and optimizing the SNCR.
*** – Lower limits may be imposed by the DEQ after review of in-stack testing.

These limitations are based on the combined primary biomass boiler (Ref. Nos. 001 and 002) operations as described in Condition 35 and the auxiliary boiler (Ref. No. 004) operating 360 hours per year. These emissions are derived from the estimated overall emission contribution from operating limits, process requirements and/or calculations. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 3 - 5, 7, 8, 14, 16 - 22, 24 - 34, 41, and 45 - 49.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

38. **Process Emission Limits** - Fugitive dust emissions from the operation of the lime storage and handling systems shall not exceed the limits specified below:

Pollutant	Lbs/hr	Tons/yr
PM_{10} – total	0.20	0.5
PM – total	0.27	0.62

These emissions are derived from the estimated overall emission contribution from operating limits and are included for emission inventory purposes. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 6, 9, 13, 14, 44 and 45.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

39. **Process Emission Limits** – Particulate emissions from the operation of the biomass handling system and storage pile shall not exceed the limitations specified below:

Pollutant	Tons/yr
$PM_{2.5}$ – total	0.1
PM_{10} – total	0.6
PM – total	1.5

These emissions are derived from the estimated overall emission contribution from operating limits and are included for emission inventory purposes. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 3, 6, 10- 12, 15, 26, 27, 43 and 45.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

40. **Process Emission Limits** - Emissions from the operation of the portable auxiliary diesel generator (006) shall not exceed the limits specified below:

Pollutant	Lbs/hr	Tons/yr
Nitrogen Oxide (as NO_2)	6.2	1.0

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 25, 28, 30, 33, 33, 42 and 45.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

41. **Visible Emission Limit** - Visible emissions from the boilers stacks (001, 002, and 004) shall not exceed ten (10) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed twenty (20) percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

42. **Visible Emission Limit** - Visible emissions from the portable auxiliary diesel generator (006) shall not exceed ten (10) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed twenty (20) percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during start-up, shutdown or malfunction.
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

43. **Visible Emission Limit** – Visible emissions from the biomass handling system shall not exceed ten (10) percent opacity as determined using the methods specified in 9 VAC 5-50-20 A.3.
(9 VAC 5-80-1985 E)

44. **Visible Emission Limit** - Visible emissions from any fabric filter vent or exhaust duct shall not exceed five (5) percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705 and 9 VAC 5-80-1180)

RECORDS

45. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

    a. Annual hours of operation for each of the primary biomass boilers (001 and 002), the auxiliary diesel generator (006), the emergency diesel feedwater pump (007), the diesel firewater pump engine (008) and the diesel air compressor engine (009), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

    b. Annual throughput distillate oil, in gallons, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

    c. Records of fabric filter bypass time for non-biomass fuel start-ups of the primary boilers (001 and 002);

    d. Records of distillate oil annual average sulfur content, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

e. Daily hours of concurrent operation of the primary biomass boilers (001 and 002) and auxiliary boiler (004) (identifying concurrent hours of operation that occur due to startup or shutdown). Compliance for each consecutive 24-hour period shall be documented on a monthly basis;

f. Records of maximum firing rate (each, in MMBtu/hr)) and total heat input (combined, in MMBtu/yr) for the primary biomass boilers (001 and 002). Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

g. Records of boiler load for each of the primary biomass boilers (001and 002) during any hours of concurrent operation with the auxiliary boiler (004);

h. Any reports/additional information required to demonstrate compliance with 40 CFR 60 Subpart Db;

i. Records of injection spray dryer control efficiency rates on a 30-day rolling average basis based on CEMs data;

j. All fuel supplier certifications;

k. All fuel quality data in accordance with Condition 27;

l. All CEMs data for opacity, CO, SO_2, NO_x and CO_2 or O_2 for the primary boilers (001 and 002);

m. All emission calculations demonstrating compliance with the emission limitations set forth in Conditions 35, 0 and 37. Such records shall include, but are not limited to all pollutant-specific emission factors, throughputs and assumptions used in the calculations. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

n. All stack test results demonstrating compliance with the lb/mmBtu limitations specified in Condition 35;

o. All COMs data for opacity for the auxiliary boiler (004); and

p. Scheduled and unscheduled maintenance and operator training.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-1180 and 9 VAC 5-50-50)

INITIAL COMPLIANCE DETERMINATIONS

46. **Stack Test** - Initial performance tests shall be conducted for SO_2, NO_x, CO, VOC, Sulfuric Acid Mist and Fluorides (HF) from each of the primary biomass boilers (001 and 002) to determine compliance with the emission limits contained in Condition 35. The tests shall be performed and demonstrate compliance within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Tidewater Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Director, Tidewater Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30, 9 VAC 5-80-1675, and 9 VAC 5-50-410)

47. **Stack Test** -For each primary biomass boiler (001 and 002), four performance tests shall be conducted for each of the following pollutants: PM (filterable), PM (total), PM_{10} (filterable), PM_{10} (total), $PM_{2.5}$ (total). Concurrently with each performance test the fuel analyses in accordance with Condition 27 shall be obtained.. The performance tests shall be conducted to determine compliance with the emission limits contained in Condition 35. The initial performance tests shall be performed, reported, and demonstrate compliance within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Subsequent performance tests shall be performed, at least 75 but not more than 105 days after the directly preceding test. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 or 40 CFR 51, Appendix M as applicable. The details of the tests are to be arranged with the Tidewater Regional Office. The permittee shall submit a test protocol at least 30 days prior to the initial performance test. The protocol shall cover all performance tests for the respective pollutant. One copy of the initial performance test results shall be submitted to the Tidewater Regional Office within 180 days of startup or 45 days after completion of the test, whichever is earlier, and shall conform to the test report format enclosed with this permit. One copy of the test results shall be submitted to the Tidewater Regional Office within 45 days after completion of each subsequent performance test and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30, and 9 VAC 5-80-1675)

48. **Visible Emissions Evaluation** - Concurrently with the initial performance tests required by Condition 47, visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall also be conducted on the primary biomass boilers (001 and 002). Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Tidewater Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed, and reported and demonstrate compliance within 60 days after achieving the maximum production rate at which the facility will be

operated but in no event later than 180 days after start-up of the permitted facility. Should conditions prevent concurrent opacity observations, the Director, Tidewater Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. One copy of the test result shall be submitted to the Director, Tidewater Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30, 9 VAC 5-80-1675, and 9 VAC 5-50-410)

49. **VEE Alternative** – A continuous opacity monitoring system may be used to satisfy the visible emission evaluation requirement in lieu of 40 CFR, Part 60, Appendix A, Method 9. The reported test data shall include averages of all six minute continuous periods within the test period and within the duration of any mass emission performance tests being conducted. It is the responsibility of the permittee to demonstrate that the monitoring system has met the requirements of the applicable performance evaluation, that the monitoring system has been properly maintained and operated, and that the resulting data has not been altered in any way. If monitoring system data indicates compliance for a period during which Method 9 data indicates non-compliance, the Method 9 data shall be used to determine compliance with the visible emission limit.
(9 VAC 5-80-1985 E and 9 VAC 5-50-20)

NOTIFICATIONS

50. **Initial Notifications** – The permittee shall furnish written notification to the Director, Tidewater Regional Office of:

    a. The actual date on which modification of the electricity generating facility commenced within 30 days after such date;

    b. The actual date on which start-up operations of the biomass handling equipment commence within 30 days of such date;

    c. The actual start-up date of the electricity generating facility within 15 days after such date;

    d. The anticipated date of performance tests postmarked at least 30 days prior to such date;

    e. The anticipated date of continuous monitoring system performance evaluations postmarked not less than 30 days prior to such date; and

    f. The intention to use continuous opacity monitoring system data results to demonstrate compliance with the applicable visible emission limit during a performance test in lieu of Reference Method 9 (reference 40 CFR Part 60 Appendix A), postmarked not less than 30 days prior to the date of the performance test.

Copies of the written notification referenced in items a, c and e above are to be sent to:

Associate Director
Office of Enforcement and Compliance Assistance (3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-80-1180, 9 VAC 5-50-50 and 9 VAC 5-80-1985 E)

GENERAL CONDITIONS

51. **Emissions Testing** - The permitted facility shall be designed and constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility/equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided. (9 VAC 5-50-30 F and 9 VAC 5-80-1180)

52. **Permit Suspension/Revocation** - This permit may be suspended or revoked if the permittee:

    a. Knowingly makes material misstatements in the permit application or any amendments to it;

    b. Fails to comply with the conditions of this permit;

    c. Fails to comply with any emission standards applicable to a permitted emissions unit;

    d. Causes emissions from the stationary source which result in violations of, or interfere with the attainment and maintenance of, any ambient air quality standard; or

    e. Fails to operate in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time an application for this permit is submitted.

    (9 VAC 5-80-1210 F)

53. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

    a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;

    b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;

    c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and

    d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
(9 VAC 5-170-130 and 9 VAC 5-80-1180)

54. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

    The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

    Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
    (9 VAC 5-50-20 E and 9 VAC 5-80-1180 D)

55. **Record of Malfunctions** – The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
    (9 VAC 5-20-180 J and 9 VAC 5-80-1180 D)

56. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Director, Tidewater Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The portion of the facility which is subject to the provisions of Rule 6-4 (Toxics) shall shut down immediately upon request of DEQ. Except as excluded below, the permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this subsection for facilities subject to

the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Director, Tidewater Regional Office.
(9 VAC 5-20-180 C and 9 VAC 5-80-1180)

57. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I and 9 VAC 5-80-1180)

58. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, Tidewater Regional Office of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-1240)

59. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-1180)

SOURCE TESTING REPORT FORMAT

Report Cover
- Plant name and location
- Units tested at source (indicate Ref. No. used by source in permit or registration)
- Test Dates
- Tester; name, address and report date

Certification
- Signed by team leader/certified observer (include certification date)
- Signed by responsible company official
- *Signed by reviewer

Copy of approved test protocol

Summary
- Reason for testing
- Test dates
- Identification of unit tested & the maximum rated capacity
- *For each emission unit, a table showing:
  - Operating rate
  - Test Methods
  - Pollutants tested
  - Test results for each run and the run average
  - Pollutant standard or limit
- Summarized process and control equipment data for each run and the average, as required by the test protocol
- A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
- Any other important information

Source Operation
- Description of process and control devices
- Process and control equipment flow diagram
- Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

Test Results
- Detailed test results for each run
- *Sample calculations
- *Description of collected samples, to include audits when applicable

Appendix
- *Raw production data
- *Raw field data
- *Laboratory reports
- *Chain of custody records for lab samples
- *Calibration procedures and results
- Project participants and titles
- Observers' names (industry and agency)
- Related correspondence
- Standard procedures

* Not applicable to visible emission evaluations

Appendix A – Document List

1. Ultrasystems Development Corporation permit application dated May 4, 1988 and signed by Mr. Harvey J. Padewar.
2. 88-10-07 VDPAC-AEDTS letter of Determination to Ultrasystems Development Corporation (Padewar), re: Franklin site.
3. 88-10-28 Ultrasystems Development Corporation – ESD letters to VDPAC Regions II, III, V and VI, conveying BACT analysis for Buena Vista, Covington, Altavista, Hopewell and Franklin sites.
4. 88-11-16 Ultrasystems Development Corporation – ESD letters to VDPAC Regions II, III, V and VI, Description of Materials Handling System, with SAPCB Form 7 (Permit Application) Revisions/Plot Plan for respective sites.
5. 88-11-17 Ultrasystems Development Corporation – ESD letter to VDPAC Region VI, Southampton, Proposed Modeling Protocol.
6. 88-12-27 VDPAC-AEDTS letter to Ultrasystems Development Corporation – ESD (Hurt), requesting explanations regarding the Ultrasystems Development Corporation October 1988 BACT Analyses.
7. 89-01-06 VDPAC-AEDTS letter to Ultrasystems Development Corporation – ESD (Hurt), reiterating problems connected with applicant's air quality analysis protocols and repeating requests for information.
8. 89-02-07 Ultrasystems Development Corporation Interoffice Correspondence, ESD (Hurt) to B. Owens, ULTRA-COGEN – Standby Boilers and Supplemental Fuel Firing (copy sent to VDPAC-DTE).
9. 89-02-23 Ultrasystems Development Corporation letter to VDPAC-AEDTS, Revised Best Available Control Technology Analysis.
10. 89-03-03 Department of Mines, Minerals and Energy (G. Wilkes) informal note to VDPAC-DTE (Jack Schubert), transmitting reports of analyses, Virginia and other coals.
11. 89-03-08 Ultrasystems Development Corporation – ESD letters to VDPAC Regions II, III, V, VI stating planned use of auxiliary (standby boiler) at each site and transmitting revisions to SAPCB Form 7 (Permit Application).
12. 89-03-21 E. J. Goller (VMI Chemistry Department) letter to Ultrasystems Development Corporation (R. Kennel), pointing out available NO_x pollution control technology options contrary to the Ultrasystems Development Corporation BACT Analysis conclusions.

13. 89-03-27 VDAPC-DCS letter to the Ultrasystems Development Corporation – ESD (Hurt), conveying values and procedures for use in applicant's air quality analyses.

14. 89-03-28 VDAPC-DCS letter to the Ultrasystems Development Corporation (R. Kennel) letter to VDAPC-AEDTS. Additional Information Request, withdrawing Covington site application and advising of (1) start of Buena Vista meteorological monitoring, (2) plans to use continuous coal feed subsystem in all plants, (3) actions to purchase lower sulfur coal at Buena Vista, (4) commitment by one host not to operate boilers simultaneously with Ultrasystems Development Corporation, and (6) decision to limit annual operations to 8,400 hours at all plants.

15. 89-03-28 Ultrasystems Development Corporation – ESD letter to VDAPC-AEDTS, Additional Information Request, with attachment entitled "Ultrasystems Response to VDAPC comments and questions given at the March 10, 1989 Meeting".

16. 89-04-03 Ultrasystems Development Corporation (R.P. Kennel) letter to Professor E. J. Goller, VMI, in response to Goller's March 21, 1989 letter.

17. 89-04-12 Rockbridge Weekly, letter to the Editor from E. J. Goller, VMI Professor of Chemistry.

18. 89-04-18 VDAPC-AEDTS letter to Ultrasystems Development Corporation (R. Kennel), stating tentative Agency BACT Determinations and requirements for air quality analysis to be performed on Buena Vista site emissions.

19. 89-04-19 Ultrasystems Development Corporation letter to VDAPC-AEDTS, requesting background information relating to tentative VDAPC BACT Determinations of April 18, 1989.

20. 89-04-20 VDAPC-AEDTS letter to Ultrasystems Development Corporation (R. Kennel), providing information requested on April 19, 1989 in text and by enclosures.

21. 89-04-27 Ultrasystems Development Corporation letter to VDAPC-AEDTS, requesting approval of previously-submitted modeling protocols and conveying information on control equipment vendor guarantees.

22. 89-04-28 VDAPC-DTE Facsimile Transmission to Ultrasystems Development Corporation – ESD (Hurt), providing copies of Cogentrix Portsmouth permit, an SCC emission factor listing, and another copy of the BACT definition previously provided.

23. 89-05-02 Ultrasystems Development Corporation letter to VDAPC-DCS, ULTRA COGEN – Significant Impact Distances.

24. 89-05-10 VDAPC-DCS letter to Ultrasystems Development Corporation, approving revised modeling protocols for Southampton and Altavista sites, subject to condition stated in the letter.

25. 89-05-12 Ultrasystems Development Corporation letter, ULTRA COGEN Air Permits, May 10 Meeting.

26. 89-05-15 VDAPC-DTE (John Schubert) memorandum to File, Minutes of Ultrasystems/VDAPC May 10, 1989 Meeting.

27. 89-05-18 VDAPC-DCS Memorandum to File, May 11, 1989 Meeting with Ultrasystems Representatives.

28. 89-05-23 VDAPC-AEDTS letter to Ultrasystems Development Corporation (R. Kennel), confirming VDAPC positions (decisions) on BACT and modeling requirements for the four sites being proposed by Ultrasystems Development Corporation.

29. 89-05-24 Ultrasystems Development Corporation letter to VDAPC-AEDTS, giving Ultrasystems Development Corporation understandings of available options under NO_x/SO_2 adverse ambient impacts.

30. 89-05-31 VDAPC-AEDTS letter to Ultrasystems Development Corporation (R. Kennel), clarifying NO_x/SO_2 BACT under adverse ambient impacts.

31. 89-06-01 Ultrasystems Development Corporation, Incorporated letter to VDAPC-DTE, Curtailment of Host Boiler Operations, transmitting copies of host - Ultrasystems Development Corporation letters, same subject.

32. 89-06-28 Ultrasystems Development Corporation letter to VDAPC-DTE transmitting excerpts from Energy Services Agreements with hosts.

33. 89-07-19 Ultrasystems Environmental Services letter to VDAPC Region VI, ULTRA COGEN – Southampton, Materials Handling Systems Description, with revision to SAPCB Form 7.

34. 89-07-25 VDAPC-AEDTS letter to Ultrasystems Development Corporation documenting request for Ultrasystems position re: host source emissions, with proposed host-to-VDAPC letter requesting permit.

35. 89-08-03 VDAPC-DCS letter to Ultrasystems Development Corporation, Incorporated (ESD) transmitting preliminary draft data for other source modeling at Altavista, Franklin and Hopewell.

36. 89-08-07 Ultrasystems Environmental Services letter to VDAPC-DTE, ULTRA COGEN Projects: Maximum Facility Emissions.

37. 89-08-08 VDAPC (Ultrasystems Working Group) memorandum to DCS modelers clarifying Ultrasystems planned operating modes for boilers.

38. 89-08-09 Ultrasystems Environmental Services letter to VDAPC-DTE, providing expected fuel use rates for auxiliary boilers

39. 89-08-09 Ultrasystems Development, Incorporated (ESD) Facsimile Transmission to VDAPC-DTE conveying Coen Company August 8, 1989 memo. ULTRA COGEN Virginia.

40. 89-08-16 VDAPC-AEDTS letter to EPA III (Air management Division) concerning problems in implementing March 16, 1988 modeling guidance.

41. 89-08-21 VDAPC-AEDTS letter to Ultrasystems Development Corporation, advising of progress in review of applicant modeling reports.

42. 89-09-06 Ultrasystems Development Corporation, Incorporated Facsimile Transmission of A. H. Merrill and Associate letter, Products of Combustion from Burning Tall Oil in a Coen Low NO_x Burner.

43. 89-09-15 VDAPC-AEDTS letter to Ultrasystems Development Corporation, transmitting a generic draft permit for the four proposed cogeneration sites.

44. 89-09-19 Ultrasystems Development Corporation letter to John M. Daniel outlining name change for projects.

45. 89-09-22 Ultrasystems Environmental Services letter to VDAPC – Region VI, transmitting diagram of belt conveyor with cover to be used at the four proposed sites.

46. 89-09-28 Portec letter to Ultrasystems (Environmental Division), Portec Lime Slaker Dust Suppression, with attached diagram. Note: This letter was transmitted to VDAPC-AEDTS the same day, as response to VDAPC query on Ultrasystems Development Corporation intentions for control of emission from slaker.

47. 89-10-02 VDAPC-DCS (Austin) Memorandum to director, Division of Computer Services, Review of Air Quality Impact Analysis for Ultrasystems Southampton.

48. Hawley's Chemical Dictionary, 11th Edition, N. Irving Sax and Richard Lewis, Van Nosatrand Reinhold County, 1987 (Excerpt: page 1118 tall oil definition).

49. Department of Air Pollution Control, Division of Technical Evaluation/Region VI engineering analysis, dated October 2, 1989.

50. Federal NSPS Regulation Part 60 Subpart Da, Standards of Performance for Electrical Utility Steam Generating Units.

51. Federal NSPS Regulation Part 60 Subpart Dc (proposed) Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

52. 89-11-17 Ultrasystems Environmental Services letter (P. Hurt) to VDAPC-AEDTS transmitting EPA response document "Response to EPA Comment on the Proposed Hadson Power 11 – Southampton Project. Dated November 3, 1989".

53. 89-12-12 Ultrasystems Environmental Services letter (P. Hurt) to VDAPC-SEDTS regarding Hadson Power 11 – Southampton, Response to EPA's Additional Air Modeling Questions.

54. 89-12-18 Ultrasystems Development Corporation letter (R. Kennel) to USEPA (B. Turlinski) regarding the Southampton Project Responses.

55. 90-01-18 Hadson Power Systems letter (J. Kelly) to USEPA (E. Erickson) regarding Hadson Power 11 – Southampton PSD Permit and Documents entitled "Review of Record and Supplemental Information for Hadson Power 11 Plant, Volumes 1 – 3".

56. 90-01-18 Hadson Power Systems letter (C. Schwenck) to USEPA (R. McCallum) regarding Hadson Power 11 – Southampton PSD Permit and Documents in "Response to EPA Region III Appeal of the Hadson Power 11 – Southampton PSD Permit".

57. 90-02-05 Hadson Power Systems letter (R. Kennel) to VDAPC (F. Daniel) requesting "Hadson Power 11 – Southampton Air Permit Changes".

58. 92-08-24 LG&E Power Systems letter (E. Gershengoren) to VDAPC (J. Stewart) regarding boiler heat input.

59. 92-09-08 LG&E Power Systems letter (P. Hurt) to VDAPC (P. Faggert) requesting response to 92-08-24 LG&E Power Systems letter (E. Gershengoren) to VDAPC (J. Stewart).

60. 92-09-11 LG&E Power Systems letter (D. Clawson) to VDAPC (F. Daniel) notifying of name change.

61. 92-10-12 LG&E Power Systems letter (D. Clawson) to VDAPC requesting name change and enclosing revised Form 7 pages.

62. 94-06-20 LG&E Power (P. Hurt) briefed VDAPC on plan to increase steam capacity.

63. 95-01-30 LG&E Power Systems letter (P. Hurt) to VDAPC summarizes plan to modify coal boilers to fire at low loads for steam generation.

64. 95-02-01 LG&E Power Systems briefed VDEQ on plan to modify coal grates of the main boilers for low load use as steam generators.

65. 95-03-27 LG&E Power Systems letter (P. Hurt) to VDEQ requests to operate main boilers at a tall oil ration of 1:2, by weight, while at low loads.

66. 95-03-31 VDEQ letter acknowledging request of LG&E Power, Inc., and requesting test data and additional information.

67. 95-04-20 LG&E Power letter (P. Hurt) to VDEQ requesting time for additional testing to support request.

68. 95-04-26 VDEQ letter to LG&E authorizes additional testing period.

69. 95-05-18 LG&E Power letter (P. Hurt) to VDEQ providing test data for nitrogen oxide emissions at higher tall oil ratios and low main boiler firing rates.

70. 95-06-19 LG&E Power letter (P. Hurt) to VDEQ providing heat rate information and proposed NOx limit to meet NSPS during high tall oil ratio firing.

71. 96-04-23 LG&E Power letter (J. Mersereau) to VDEQ requests to operate main boilers at a tall oil to coal ratio of 2:1 while steam firing only. Letter also requests that several small internal combustion sources and three bagfilters associated with the ash handling system be added to the existing PSD permit in addition to clarification of several other items in the permit.

72. 96-05-20 VDEQ letter to LG&E acknowledging requests of LG&E Power, Inc., demoted in letter (J. Mersereau) dated 96-04-23.

73. 96-06-28 VDEQ letter to LG&E requesting additional information on fabric filter control efficiencies and ash handling system total throughputs.

74. 96-07-16 LG&E letter (J. Randza) to DEQ providing data on fly ash fabric filter control efficiencies and total throughputs for the ash handling system. Permit application dated 96-04-23 deemed complete at this time.

75. 96-09-17 LG&E letter (J. Mersereau) to DEQ providing comments to the draft permit. Letter withdraws request to change the tall oil to coal ratio in the primary boilers. Requests to add No. 2 fuel oil as an approved fuel for the primary boilers for startup and coal firing per August 10, 1994, letter from DEQ to LG&E authorizing its use. Application deemed complete 96-09-18.

76. 96-10-21 conversation between VDEQ and LG&E (J. Mersereau) requesting reporting requirements of Specific Condition 35 be updated to reflect currently practiced reporting procedures for oil: coal ratios.